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()

Cystatin C

*

Cystatin C

Cystatin C

(GFR)

Turbidimetry (PETIA)

Cystatin C, RI 1000 Combas Mira

(%)

(%)

(%)

±

% / % /

Cystatin C

(% /)

Cystatin C

. % / % /

. *P* < /

Cystatin C

(GFR)

Cystatin C

baharmoeini @ yahoo.com

Cystatin C
)
(()
(GFR)
% /
()
()
ml/min
mass
) ()
mg/m² ()
Cystatin C ()
CC/min Cys C
Cystatin C ()
Stabuc
()
) mg/m²
()

Cystatin C

Cystatin C

) GFR

(Crcl <) (Crcl >)

(cut off)

/ mg/dl Cys C Cystatin C

Crcl < / mg/l

) Cystatin C (Dako cystatin c PET kit) Cystatin C

((PETIA) Turbidimetry

(PPV)

% / Cystatin C

% / % / (NPV)

% /

% / (accuracy)

$$\frac{\text{mg/dl} \times \text{ml/min}}{\text{mg/dl}} \times \frac{1}{\text{m}^2}$$

Cystatin C

(%)	(%)	+	Crcl/urine 24 h Serum Cys C
(/)	(/)	(/)	Crcl < Cys C > /
(/)	(/)	(/)	Crcl > Cys C < /
()	()	()	

Cr Cystatin C
(Crcl/urine)

Crcl/urine Cystatin C

t

±

(%) (%)

Cystatin C

GFR (Crcl)

(PPV)

(P < /)

% /
%

(NPV)

% /
.

± ±

.(accuracy)

.()

(Accuracy)

Crcl <78 ml/min

Cys C

Crcl <78 ml/min			Cys C
(%)	(%)	(%)	
()	()	()	Creatinine
()	(/)	(/)	Cystatin C
Cystatin C			-

			+ Crcl/urine 24 h
(%)	(%)	(%)	Serum Cys C
()	()	()	(+)
()	()	()	Crcl <
()	()	()	Cys C > /
()	()	()	()
()	()	()	Crcl >
()	()	()	Cys C < /

/ / / - / **Cys C**

/ / / - /

Cystatin C -

/ / / - / **Cys C**

/ / / - /

Cystatin C

(%)

(% /) **Cys C**

(

(P < /)

.(RR= /)

/ **Cys C**

Cystatin C

/ ± /

t / ± /

(P < /)

/ ± /

t / ± /

/

() Cys C % / % / Cystatin C
 Tc⁹⁹ % % % / % / Cystatin C
 Narvaez Stubuc
 Cys C Cystatin C
 Cr Cys C GFR Cystatin C
)
 (Tc⁹⁹- DTPA
 Cys C GFR < ml/min Cystatin C
 % Serum Cr % % P= /) GFR
 () % Cys C ROC (r= /
 Cys C
 Crcl<
 ()
 Cys C
 Maelsaac
 Cys C Cystatin C
 ()
 Larterza Tc⁹⁹ - DTPA
 Cystatin C
 GFR Crcl< ml/min
 Cys C Cys C
 Cys C

()

()

Cys C

()

Cys C

Rich

Cys C

Cys C

¹²⁵Iothioalamat

GFR < ml/min

Valid

Blind

Cys C

()

Cystatin C

Cys C GFR < ml/min

GFR<

Cystatin C

Cys C

REFERENCES

1. Devita V, Pine J, Murphy J. Cancer principles and practice of oncology. 7th ed. Philadelphia : Lippincott Williams & Wilkins. 2005; PP: 352-6.
2. Madius NF, Harrington JT. Long term effect of Cisplatin (cddp) on renal function in men. Cancer 1978; 41(4): 1274-81.
3. Hardaker WT Jr, Ston RA, Mccoy R. Platinum nephrotoxicity. Cancer 1974; 34(4): 1030-2.
4. Stabuc B, Vrhovec L, Stabuc-Silih M, Cizej TE. Improved prediction of decreased creatinine clearance by Serum Cystatin C in cancer patients before and during chemotherapy. Clin Chem 2000; 46: 193-7.
5. Laterza OF, Price CP, Scott MG. Cystatin C: An improved estimator of glomerular filtration rate. Clin Chem 2002; 48: 699-707.

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6. Braunwald E, Fauci AS, Kasper DL, Hausere SL, Longo DL, Larry Jameson J. Harisson's Principles of Internal Medicine. 15th ed. New York: MC Graw Hill. 2001.
 7. Andreoli TE, Carpenter J, Griggs RC, Loscalzo J. Cecil Essential of medicine. 5th ed. Philadelphia: W.B. Saunders Company. 2001; PP: 223-37.
 8. Hoek FJ, Kemperman FA, Krediet RT. A comparison between Cystatin C, plasma creatinine and the cockcroft and gault formula for the estimation of glomerular filtration rate. *Nephrol Dial Transplant* 2003; 18: 2024-31.
 9. Macisaac RJ, Tsalamandris C, Thomas MC, Premaratne E, Panagiotopoulos S, Smith TJ, et al. The accuracy of cystatin C and commonly used creatinine-based methods for detecting moderate and mild chronic kidney disease in diabetes. *Diabet Med* 2007; 24(4): 443-8.
 10. Narvaez-Sanchez R, Gonzalez L, Salamanca A, Silva M, Rios D, Arevalo S, et al. Cystatin C could be a replacement to serum creatinine for diagnosing and monitoring kidney function in children. *Clin Biochem* 2008; 41(7-8): 498-503.
 11. Herget-Rosenthal S, Marggraf G, Hüsing J, Göring F, Pietruck F, Janssen O, et al. Early detection of acute renal failure by serum Cystatin C. *Kidney Int* 2004; 66: 1115-22.
 12. Uhlmann, Hock KG, Issitt C, Sneeringer RM, Cervelli DR, Gorman RT, et al. Reference intervals for plasma Cystatin C in healthy volunteers and renal patients, as measured by the dade behring BN II system, and correlation with creatinine. *Clin Chem* 2001; 47(11): 2031-3.
 13. Holweger K, Bokemeyer C, Lipp HP. Accurate measurement of individual glomerular filtration rate in cancer Patients: an ongoing challenge. *J Cancer Res Clin Oncol* 2005; 131(9): 559-67.
 14. Bagshaw SM, Bellomo R. Early diagnosis of acute kidney injury. *Curr Opin Crit Care* 2007; 3(6): 638-44.
 15. Coca SG, Yalavarthy R, Concato J, Parikh CR. Biomarkers for the diagnosis and risk stratification of acute kidney injury. *Kidney Int* 2007; 73(9): 1008-16.
 16. Uzun H, Ozmen Keles M, Ataman R, Aydin S, Kalender B, Uslu E, et al. Serum Cystatin C level as a potentially good marker for impaired kidney function. *Clin Biochem* 2005; 38: 792-8.